

Lesson Plan for Collaborative Learning Using Knowledge-Constructive Jigsaw Method

Consortium for Renovating Education of the Future (CoREF), The University of Tokyo ©

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Date of the class	-	Subject	Geography B
Grade	10 - 12	Number of students	36
Unit name	Western Asia	This class / Total hours for this unit	1/1
Textbook and its publisher		Shinsho-Chiri B (Teikoku Shoin)	

Objective of the class (What do you want the students to learn through this class? To what kind of learning is this class expected to lead?)

Dubai is a gorgeous city which suddenly appears in a huge desert. It was just a port in the desert forty years ago, but in recent years, the city has transformed itself drastically. At first glance, it looks like oil money is the main factor for this change, but it's not. You'd need to dig deeper and learn about Dubai's strategy for survival.

We'd like our students to be really in tune with small things. As we don't allocate much time on teaching about the Middle East at school, we hope they will gain a better understanding of the region through this lesson.

Main question (Main task in the jigsaw activity, which brings all the elements of the lesson together)

Why has Dubai developed so rapidly in recent years?

Prior knowledge and learning of students expected (To what extent can the students answer the above-mentioned question before the class? What are difficulties?)

People seem to associate Dubai as a gorgeous city, because they have seen it through TV programs and movies. The fact that Dubai is in the Middle East would likely lead many of the students to assume that oil money is the main reason for the rapid development of the city.

Points of expected answers (Stories which students are expected to be able to explain and points which are expected to be included in the answer when they answer the above-mentioned question at the end of this class. Achievement standard to evaluate the understanding of the learned contents of this class)

Dubai is situated between Europe and Asia, and is relatively safe compared to the other Middle Eastern countries. These two factors have enabled the city to establish trade as their key industry without relying heavily on oil. They built Jebel Ali Port (the largest artificial port in the world), opened Dubai International Airport, and founded Emirates Airline. They also maintained free trade zones to actively invite foreign capital, and opened luxurious hotels one after another. All of these have helped Dubai establish itself as a popular resort, and the city has grown rapidly, gathering people, goods and money at the same time.

Content of each expert material (Write the points to be covered in each expert and the contents and activities to be handled for that purpose so that the students will provide an answer which meets the points of expected answer at the end of the class.)

Expert A : Dubai's history, geography, and industries

Dubai is situated between Europe and Asia, and is relatively safe compared to the other Middle Eastern countries. These two factors have enabled the city to establish trade as their key industry without relying heavily on oil.

Expert B: Dubai's Infrastructure development

Dubai built Jebel Ali Port (the largest artificial port in the world), opened Dubai International Airport, and founded Emirates Airline. Jebel Ali Port is one of the leading ports in the world, and the airport has the largest international passenger traffic, gathering people and goods in the city.

Expert C : Dubai's policy toward tourism and the attraction of foreign capital

Dubai has a number of luxurious hotels and famous sightseeing spots. With the development of Emirates Airline, the city has attracted more and more tourists from all over the world, establishing itself as a leading resort and gathering people and money.

Questions, tasks and learning contents to be challenged next based on what students understand at this jigsaw class

Oil production is a key industry in Western Asia. Consider how this industry has an impact on the region to understand different kinds of industries in the whole area.

Learning of this class and connection with preceding and subsequent classes

Time	Contents to handle and learning activities	Desirable goal
Up to this class	Lifestyle revolved around Islam	Appreciating Islam, which forms the basis of Western Asia
The preceding class	A city which has developed largely due to trade	Understanding the fact that this region has traditionally developed through trade, and recognizing this as the foundation for the growth of Western Asia
This class	Dubai	Using Google Earth to comprehend how Dubai has developed this fast
The subsequent class	Rich resources and industries	Understanding the Western Asian industries by considering the advantages they receive out of being prominent oil producers.

Goal of the above-mentioned series of learning (unit)

Dubai has managed to remove limited perspectives on Western Asia (such as terrorism, Islam, and oil). The city has made the most of its long history of flourishing through trade to invite foreign capital, promoting its industries without heavily relying on oil. Dubai has established itself as a leading resort in the world. It will also hold the Expo 2020 Dubai. It's worth noting that Western Asia has been growing rapidly in recent years.

Design of the learning activities of this class

Time	Learning activities	Teacher support, etc.
5 mins	Introduction	• Present the theme of the session, and describe how the lesson goes.
10 mins	Expert activities	• Secure sufficient time for reading the provided materials.
20 mins	Jigsaw activities	• Encourage the students to responsibly take part in the activities. • Walk around the tables and support the students where appropriate.

10 mins	Mutual discussion	<ul style="list-style-type: none"> • Present each group's thoughts. • Have the students record the other groups' impressive thoughts on their worksheet, and lead to the summary section.
5 mins	Summary/review	<ul style="list-style-type: none"> • Encourage the students to answer the question from their theme, using their own words. • Help the students notice how their answers to the question have changed after the lesson.

Number of members of each group and how to form groups

As a general rule, the lesson has 12 groups of 3 people. We will adjust this according the number of absentees.

References:

- "The data book of the world 2018" (Ninomiya-Shoten Publishers Ltd.)
- Takeru Hosoi "Dubai's development strategy" "The Ritsumeikan business review"(2003)
- Nobuki Hirose "Current status and challenges of Dubai economy" "Reference "(2009)
- https://www.anzen.mofa.go.jp/info/pcareahazardinfo_13.html (Viewed on February 16, 2018)
- <https://www.narita-kinoukyouka.jp/status.html> (Viewed on April 16, 2018)
- Dubai Statistics Center <https://www.dsc.gov.ae/en-us> (Viewed on April 27, 2018)

* The Knowledge Constructive Jigsaw method and this format of lesson plan has been developed by the collaborative lesson improvement project of CoREF and its associate education boards and schools. Commercial use is strictly prohibited without permission.

* This lesson plan and learning materials were originally written in Japanese and were translated into English by Google Earth Outreach Japan.

- Teaching Material -

Why has Dubai developed so rapidly in recent years?

Dubai is famous for its sightseeing spots and movie locations. Although it is a gorgeous city today, which suddenly appears in a desert, it was just a small port forty years ago. What has made it grow so fast?

Dubai is one of the seven emirates in the United Arab Emirates (UAE).



↑ Search for “Dubai” in the search window on the upper-left corner of Google Earth, and check its location on the map. Open the Knowledge Card on the right-hand side to learn about the history and facts of the place.



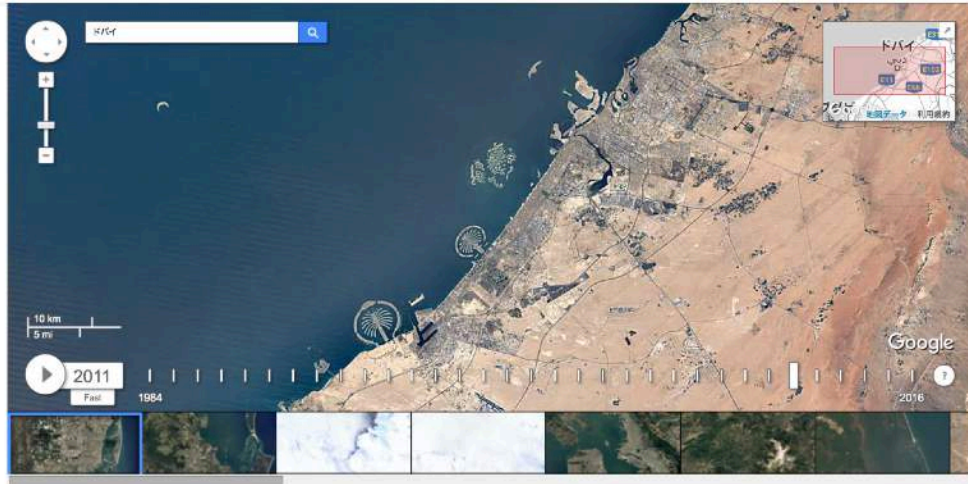
↑ Click on the Pegman on the lower right of the screen, and click on the areas highlighted in blue on Google Earth. This will enable Google Street View, so you can explore Dubai’s cityscape.

Let’s look over Dubai from the sky!

[Q1] When did Dubai start developing rapidly?

Use the [Timelapse](#) feature of [Google Earth Engine](#) to observe how the city has changed over the years.

(Timelapse URL : <https://earthengine.google.com/timelaps>)



Search for Dubai in the search window on the upper-left corner, and use the Timelapse feature of Google Earth Engine to observe the development of the city over time.

[Q2] What has made it possible for Dubai to grow so rapidly in recent years?

You can write down your observations from Google Earth.



- About Dubai (history, geography, and industries) -

① Geography



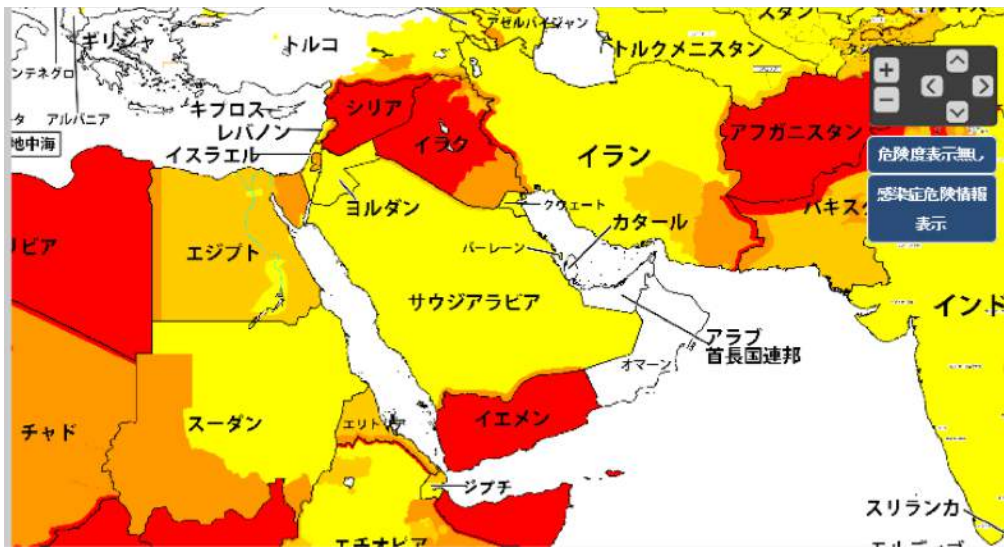
Search for Dubai on [Google Maps](https://www.google.com/maps), and see how convenient the city is in terms of transportation. It's located between Europe and Asia.

② History (chronology)

- 1830s: Dubai was founded.
- 1853: Dubai became a British protectorate.
- 1870s: Dubai became a leading port in the coastal area, and it prospered through pearl mining as its main industry.
- 1966: A oilfield was discovered off the coast of Dubai.
- 1969: Dubai started producing oil.
- 1971: The United Arab Emirates (UAE) was founded, and Dubai International Airport was opened.
- 1979: Jebel Ali Port, the largest artificial port in the world, was opened.
- 1985: Emirates Airline was founded.
- 2010: Burj Khalifa, the tallest building in the world, was constructed.
- 2020: The Expo 2020 Dubai will be held in Dubai.

③ Public safety in Dubai (according to Ministry of Foreign Affairs of Japan)

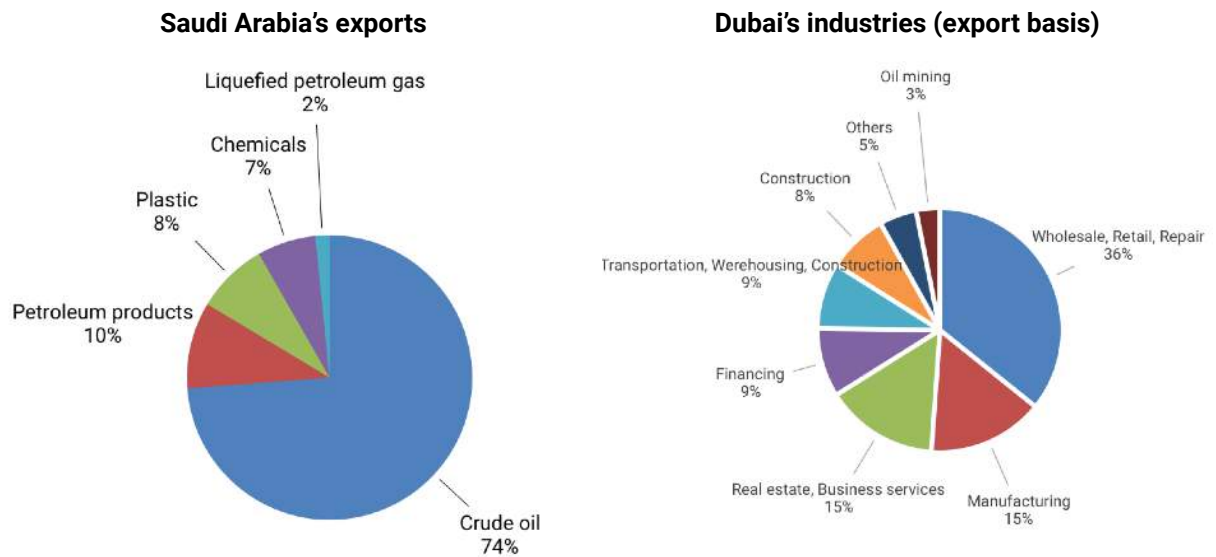
Although you often receive travel alerts or travel bans in Middle Eastern countries, UAE, where Dubai belongs, is exceptionally safe. The deeper the color gets on the map, the more dangerous the area is. People tend to associate the Middle East with terrorism, UAE/Dubai is safe with fewer terrorist attacks.



Source: Overseas Safety HP <https://www.anzen.mofa.go.jp/travel/index.html>

④ Dubai and oil

People often associate the Middle East with petroleum. The diagram below shows Saudi Arabia's exports and Dubai's industrial structure on the export basis.



* These charts were created by the teacher referring to "The data book of the world 2018" (Ninomiyama-Shoten Publishers Ltd.)

[Question] Summarize Dubai's characteristics, mentioning its public safety and industries.

B

- Dubai's Infrastructure development -

① The foundation of Emirates Airline

1985: Emirates Airline started operations, using two airplanes leased from Pakistan International Airlines.

2015 (November): Emirates Airline came to own the largest number of airplanes in the world.

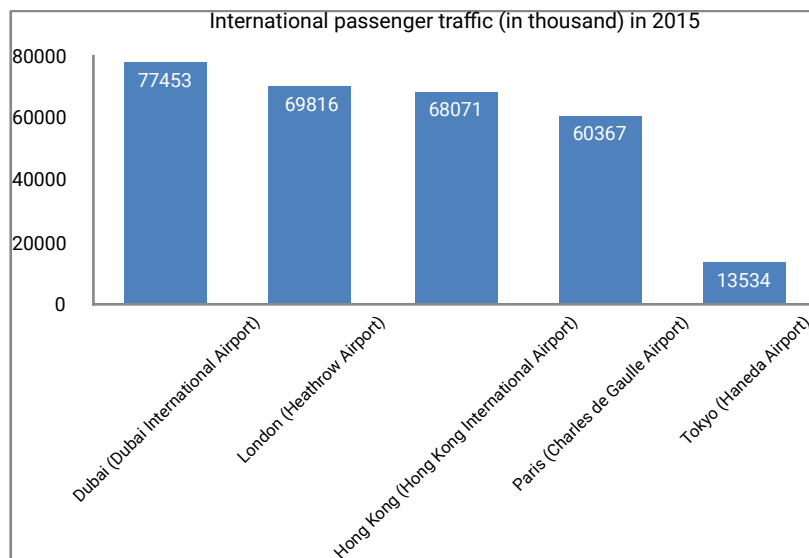
2015: Dubai International Airport came to have the largest international passenger traffic.

2018: Emirates Airline is in service in over 155 cities in 80 countries in the world.

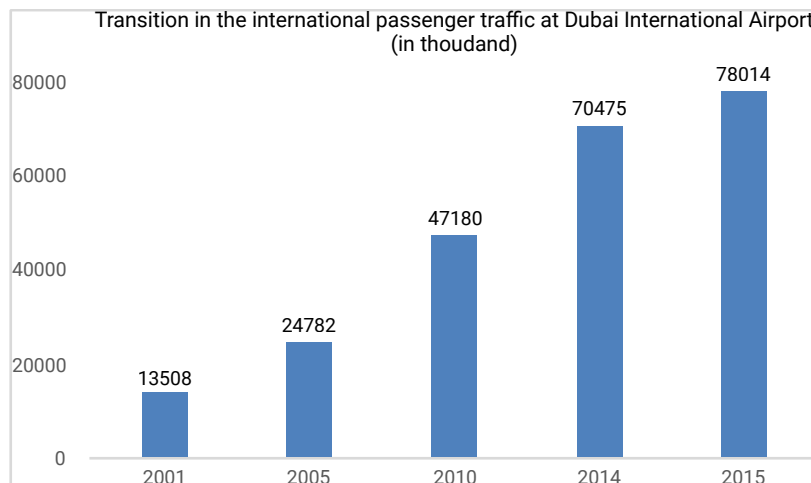


Originally, Dubai didn't have its own airline, so it decided to create Emirates Airline. At first, the company had only two airplanes, but now it has grown into a major airline which owns over 265.

Record on the International passenger traffic at major airports



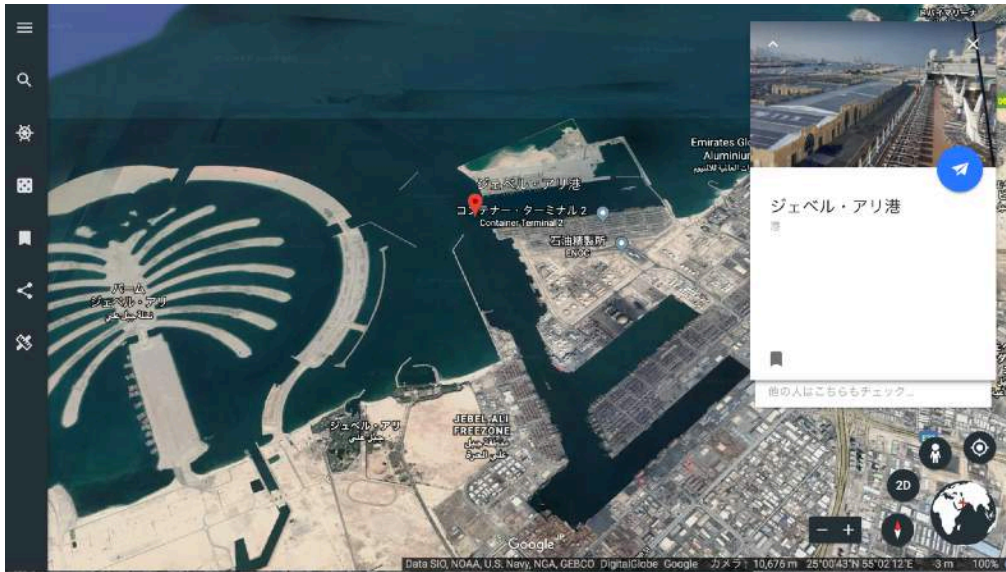
With the development of Emirates Airline, Dubai International Airport has continued to increase its international passenger traffic, which became number one in the world in 2014. This achievement has been repeated since 2017.



↑ These charts were created by the teacher referring to Dubai Statistics Center

② Jebel Ali Port

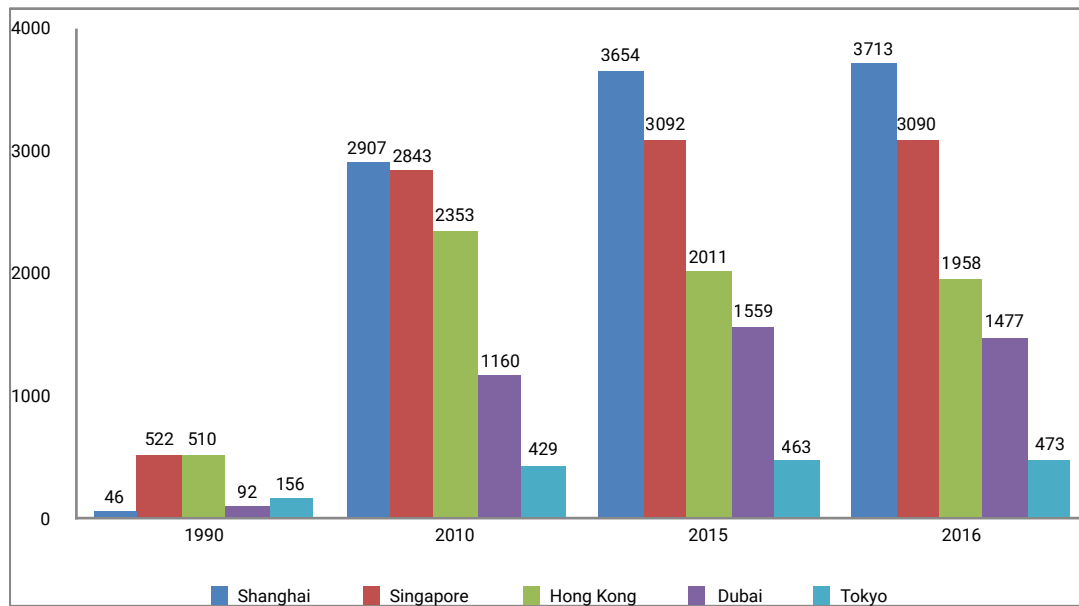
Thanks to an enormous amount of profit from oil export, the world's largest Jebel Ali Port was opened in 1979. This port is surrounded by free-trade zones, where foreign companies operate. These areas function as prominent logistics bases in the world.



↑ Looking over Jebel Ali Port from the sky, using Google Earth

Container volumes at major harbors (ten thousand TEU)

* TEU means Twenty-foot Equivalent Unit.



↑※ This chart was created by the teacher referring to "The data book of the world 2018" (Ninomiya-Shoten Publishers Ltd.)
 (* Dubai's container volumes came 13th in 2000, 9th in 2010 and 8th in 2011. They came 9th from 2012 to 2016.)

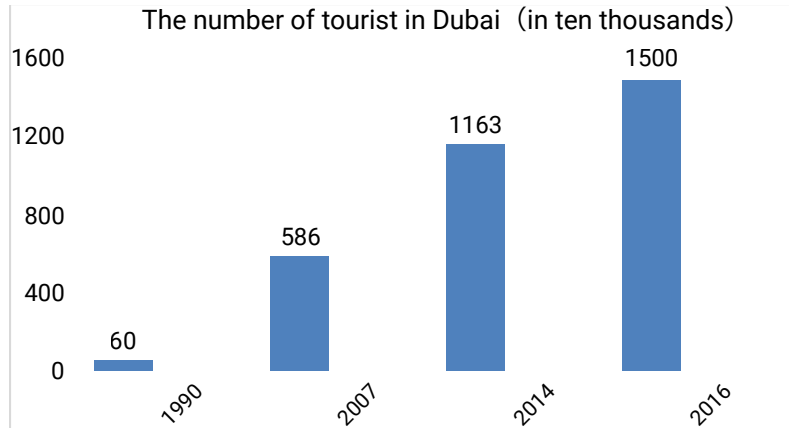
【Question】 What impact did the openings of Emirates Airline and Jebel Ali Port have on Dubai?



- Dubai's policy toward tourism and the attraction of foreign capital -

① Tourism in Dubai

Although the number of tourists visiting Dubai was 600 thousand in 1990, the number rapidly increased to 5.86 million in 2007, thanks to the development of Emirates Airline. Dubai began focusing more on tourism in 1992. It is this effort that has made the city one of the leading resorts attracting tourists from all over the world.



↑ This chart was created by the teacher referring to Dubai Statistics Center

• Luxurious hotels: There are a number of seven star hotels in Dubai.



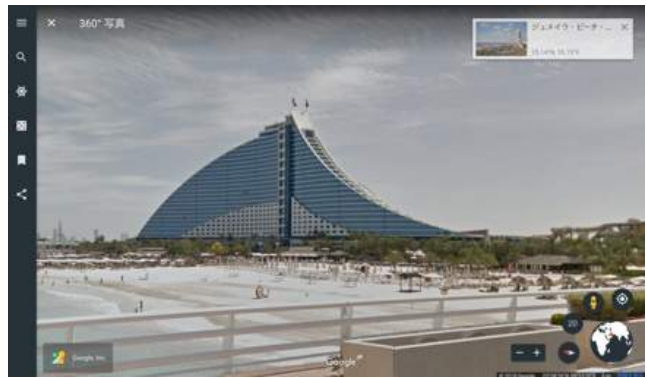
↑ Burj Al Arab



↑ Burj Al Arab seen in Google Earth Street view mode.



↑ Jumeirah Beach Hotel



↑ Jumeirah Beach Hotel seen in Google Earth Street view mode.

• Famous sightseeing spots



↑ The Dubai Mall (the world's largest shopping mall)



↑ ↑ The Dubai Mall seen in Google Earth Street View mode.



↑ Burj Khalifa



↑ Burj Khalifa seen in Google Earth Street View mode.

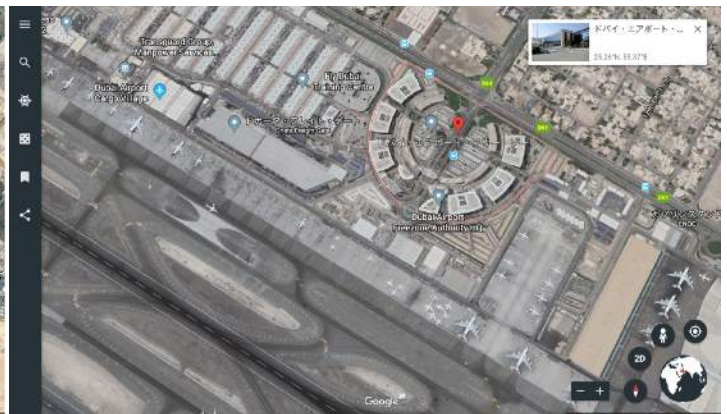
② The attraction of foreign capital

Dubai has maintained more than twenty free trade zones, which encourage foreign companies to operate. The companies located in these areas are allowed to employ foreign workers without constraint. The following are the main free trade zones in Dubai. Due to maintaining these free trade zones, Dubai has become highly international in terms of population, gathering foreign capital. The percentage of UAE citizens to foreigners is currently 9% : 91%.

- Jebel Ali Free Zone (which neighbors the world's largest Jebel Ali Port)
- Dubai Airport Free Zone (which neighbors Dubai International Airport)
- Dubai Internet City (for tech companies)
- Dubai Media City (for the press)
- Dubai International Academic City (for educational institutions)



↑ The free trade zones neighboring Jebel Ali Port (Search for Jebel Ali Freezone on Google Earth)



↑ The free trade zones neighboring Jebel Ali Port (Search for Dubai Airport Freezone on Google Earth)

[Question] What brings foreigners to Dubai?

Produced by Saitama Prefectural Board of Education

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